

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 13)

FOIL the expressions shown below:

1. $(-5x - 7)(9x - 2)$

$$\begin{aligned} &(-5)(9)x^2 + (-5)(-2)x + (-7)(9)x + (-7)(-2) \\ &(-45)x^2 + (10)x + (-63)x + (14) \\ &-45x^2 - 53x + 14 \end{aligned}$$

2. $(9x + 6)(-6x - 4)$

$$\begin{aligned} &(9)(-6)x^2 + (9)(-4)x + (6)(-6)x + (6)(-4) \\ &(-54)x^2 + (-36)x + (-36)x + (-24) \\ &-54x^2 - 72x - 24 \end{aligned}$$

3. $(-3x + 8)(-3x + 3)$

$$\begin{aligned} &(-3)(-3)x^2 + (-3)(3)x + (8)(-3)x + (8)(3) \\ &(9)x^2 + (-9)x + (-24)x + (24) \\ &9x^2 - 33x + 24 \end{aligned}$$

4. $(6x + 9)(9x + 8)$

$$\begin{aligned} &(6)(9)x^2 + (6)(8)x + (9)(9)x + (9)(8) \\ &(54)x^2 + (48)x + (81)x + (72) \\ &54x^2 + 129x + 72 \end{aligned}$$

5. $(-3x + 6)(7x - 2)$

$$\begin{aligned} &(-3)(7)x^2 + (-3)(-2)x + (6)(7)x + (6)(-2) \\ &(-21)x^2 + (6)x + (42)x + (-12) \\ &-21x^2 + 48x - 12 \end{aligned}$$

FOIL the expressions shown below:

6. $(-5x - 6)(7x + 7)$

$$\begin{aligned} &(-5)(7)x^2 + (-5)(7)x + (-6)(7)x + (-6)(7) \\ &(-35)x^2 + (-35)x + (-42)x + (-42) \\ &-35x^2 - 77x - 42 \end{aligned}$$

7. $(8x - 7)(-4x - 2)$

$$\begin{aligned} &(8)(-4)x^2 + (8)(-2)x + (-7)(-4)x + (-7)(-2) \\ &(-32)x^2 + (-16)x + (28)x + (14) \\ &-32x^2 + 12x + 14 \end{aligned}$$

8. $(7x + 7)(-4x + 3)$

$$\begin{aligned} &(7)(-4)x^2 + (7)(3)x + (7)(-4)x + (7)(3) \\ &(-28)x^2 + (21)x + (-28)x + (21) \\ &-28x^2 - 7x + 21 \end{aligned}$$

9. $(-9x + 2)(-8x + 7)$

$$\begin{aligned} &(-9)(-8)x^2 + (-9)(7)x + (2)(-8)x + (2)(7) \\ &(72)x^2 + (-63)x + (-16)x + (14) \\ &72x^2 - 79x + 14 \end{aligned}$$

10. $(7x - 8)(-7x - 5)$

$$\begin{aligned} &(7)(-7)x^2 + (7)(-5)x + (-8)(-7)x + (-8)(-5) \\ &(-49)x^2 + (-35)x + (56)x + (40) \\ &-49x^2 + 21x + 40 \end{aligned}$$